

upper leaf) are closely and shallowly furrowed (FIG. 2). Var. *uniflora* (var. *subtilis* Hook.), as shown by Lange, Fl. Dan. xvii. fasc. li. 3, t. mmmii. fig. 2 (1883), and by many European specimens (see FIGS. 5 and 6), is very similar to the newly proposed var. *laurentiana* in having the cauline leaves narrowed to tip, the culms coarsely furrowed, the panicle comparatively small and the spikelets mostly 1-flowered; but the panicle is lax and open as in typical European *C. aquatica*, with the branches subsending until mature. The Rocky Mountain representative of the species (FIGS. 7 and 8) seems to be var. *uniflora*.

(To be continued)

CHARLES ALBERT ROBBINS, 1874-1930

S. F. BLAKE

CHARLES ALBERT ROBBINS was a worthy member of the widely scattered band of amateur botanists who, without the advantage of early scientific training, by a combination of enthusiasm and perseverance have contrived to master their chosen fields and make substantial contributions to botanical knowledge. Equipped with only a common school education, and compelled to devote practically the whole of his life to business, Mr. Robbins nevertheless succeeded in bringing together what is doubtless the largest private collection of *Cladonia* ever formed in this country and in obtaining recognition as the best-informed student of that genus whom America has produced. It is a matter for deep regret that his untimely death at the age of 55, almost immediately after his retirement from business had afforded the leisure for study he had so long desired, has deprived us of the more matured works of wider scope which might confidently have been expected from him.

Charles Albert [Sumner] Robbins was born in Stoughton, Massachusetts, on 9 February 1874, the son of Charles Orlando and Rosella Robbins. Both his parents were natives of Maine, his father's branch of the Robbins family being descended from one of three brothers from England who settled at an early date in Maine, Cape Cod, and Rhode Island respectively. After a grade school education Mr. Robbins entered the grocery business, at first working in Stoughton. In the early 'nineties he moved to Onset, a well-known summer resort section of Wareham, Massachusetts, where he lived for the rest of

his life. For nearly thirty years he conducted a grocery and provision business there in partnership with Arthur B. Hammond, retiring from it after the death of Mr. Hammond, and only about a year before his own death. In 1897 he married Nellie Barnard of Onset. Mrs. Robbins entered fully into her husband's interest in natural history, and accompanied him on nearly all his field trips. On their last excursion to New Hampshire, in October, 1929, Mr. Robbins had trouble with an infected tooth, and on their return to Onset it was found that his aorta was infected. After several months of sickness he died on 22 January 1930, from a combination of angina pectoris and infected aorta, and was buried in the "Neighborhood Cemetery" in East Wareham. Besides his wife, he was survived by two sons, Lloyd and Bruce, his father (since deceased), and a brother. His mother had died only a month before him.

From his parents Mr. Robbins inherited a love of the out-of-doors, although this acquired no definite direction until he was about 30 years of age. About that time his lifelong friend Ernest M. Fullerton of Stoughton aroused in him an active interest in the field study of birds which he kept until the close of his life. Through this interest he came into contact with other students of birds in eastern Massachusetts—Outram Bangs, William Brewster, Walter Faxon, Dr. W. M. Tyler, J. B. Norton, and others,—and with them he made many trips. In the winter he was accustomed to distribute food for the birds in the vicinity of Onset, usually accompanied on such trips by his friend Frank Robbins (not a relative). He was in no haste to publish his observations, and his printed notes on birds, aside from an article on the breeding habits of the piping plover and another on the method of feeding of the red crossbill as studied in a captive bird, are confined to a single short note in the "Auk," several Christmas censuses in "Bird-Lore," and some short articles in a local newspaper. His longest paper, which remains in manuscript, was an annotated list of the winter birds of Wareham containing the names of 103 species.

The interest in *Cladonia* which absorbed the last fifteen years or more of Mr. Robbins' life was awakened in him as a child by the observation of the beautiful scarlet-fruited species, *C. cristatella*, which is so common on decaying stumps and earth throughout New England. When he began seriously to collect lichens about 1915, however, he did not confine his attention to Cladonias, but studied also the arboricolous forms so abundant in Wareham and its vicinity.

At first, for lack of a satisfactory manual, he was compelled to rely on others for the identification of his specimens, particularly Dr. L. W. Riddle, of whose assistance he always retained a grateful memory. As his herbarium of named specimens grew and as his explorations showed him the wealth of *Cladonias* in his region and the incomplete state of knowledge concerning them, his interests gradually centered on that genus, and by about 1920 he was devoting himself almost entirely to its study. Shortly before the death of Dr. Riddle Mr. Robbins entered into a correspondence with G. K. Merrill, the well-known lichenologist of Rockport, Maine, which continued for five years. Mr. Merrill's identifications and critical notes were of great assistance to Mr. Robbins in the early years of his study, but as his own familiarity with the genus increased differences of opinion arose,—Mr. Robbins estimating the work of Wainio and Sandstede much more highly than did Mr. Merrill,—and their correspondence was broken off abruptly by Merrill in 1925.

Although Mr. Robbins sent a few specimens indirectly to Wainio, the monographer of *Cladonia*, and obtained identifications of them, his principal European correspondent was Heinrich Sandstede of Bad Zwischenahn, Oldenburg, with whom the interchange of specimens and opinions was as easy as it was difficult with Wainio. Their correspondence, begun in 1922, continued practically to the end. To him Mr. Robbins was accustomed to send especially difficult specimens collected by himself or his correspondents, and from him he purchased in 1923 the first eight fascicles (nos. 1-1086) of Sandstede's "*Cladoniae exsiccatae*." He contributed a number of sets of 40 specimens each to later distributions, receiving in return the fascicles as issued as well as a set of Arnold's beautiful photographs of types and historical specimens of *Cladonia*.

The vicinity of Wareham with its sand plains, pitch pine woods, and cranberry bogs is rich in *Cladonias*, and Mr. Robbins found there a fruitful field for his labors. He described three new species and numerous forms from that region, and another species was described from his collections by Wainio. Always pleased to place his knowledge of the genus at the service of others, he rendered much assistance to Dr. Alexander W. Evans in the latter's work on the *Cladonias* of Connecticut and of North and South Carolina, and many of his new forms have been or will be published by Dr. Evans in his papers on the *Cladonias* of those regions. He named also the specimens of the

genus collected by A. F. Allen¹ in Quebec, describing from them a new species. On my first visit to Mr. Robbins, in 1924, he persuaded me to collect Cladonias, and for several years I continued to send him material from the District of Columbia and its vicinity and from excursions farther afield. On several occasions I collected with him at Onset, and I recall his pleasure at my chance discovery of a striking new form of *Cladonia cristatella* with orange apothecia, his name for which has not yet been published.

His *Cladonia* herbarium was, without doubt, the largest private collection of the genus in this country. In addition to a set of Sandstede's *Cladoniae Exsiccatae* and one of Arnold's *Cladoniarum Icones Herbariorum*, it contained sets from Dr. Evans collected in New England and the Carolinas; sets of the present writer from Europe, the District of Columbia and vicinity, and the Pacific Coast; a small number of specimens from G. K. Merrill, important because containing fragments of types; a set of A. F. Allen's plants from Quebec; and occasional specimens from others. His own collections, principally from the vicinity of Wareham, Massachusetts, and from Jackson, New Hampshire, where he was accustomed to pass his fall vacations, were very extensive and contained long series of each species selected to show variation. All specimens retained for his herbarium were mounted with glue on small pieces of cardboard, with the data written on the back of the mount and also typed on the front of the envelope. His *Cladonia* herbarium has been given by his widow to the Farlow Herbarium, with the exception of the sets of Sandstede's *Exsiccatae* and Arnold's *Icones*, both of which, already represented there, were acquired by Dr. A. W. Evans for the herbarium of Yale University.

Mr. Robbins' long continued study of *Cladonia* in Wareham, during which, as he used to remark, he had covered a great part of the area on his hands and knees, made his locality the most carefully investigated region in the United States in respect to its *Cladonia* flora. His unpublished list of approximately 46 species from Wareham is larger by one than the whole *Cladonia* flora of Connecticut as reported by Evans. It was his ambition, born of his early struggles with its extremely variable and perplexing species, to produce for the use of other students an up-to-date treatment of the genus for the New England region. Toward this end he prepared keys and descriptions, revising them from time to time as his knowledge increased, but the

¹ A. F. Allen, "Some *Cladoniae* from the valley of the Cap Chat River and vicinity, Gaspé Peninsula, Quebec," *RHODORA* **32**: 91–94. *pl.* 199. 1930.

paper never approached final form. He was slow and deliberate in his work, accustomed to go through his extensive series of specimens again and again to test the constancy of supposed characters, and always willing to change his opinion when the facts appeared to require it.

Among the flowering plants, Mr. Robbins devoted particular attention to the asters and goldenrods. His station for *Aster concolor* L. in a field at East Wareham, discovered fifteen years or more ago by Mrs. Robbins, is the only one for this species so far found on the mainland of Massachusetts. *Aster nemoralis* var. *major* Peck (var. *Blakei* Porter), for which he had a station in an open swamp in East Wareham, is less rare but still noteworthy. *Luzula campestris* var. *acadiensis* Fernald, which he collected at Stockton's Point, Wareham, in 1920, has not been found elsewhere south of Maine. None of these records, all represented by specimens in the herbarium of the New England Botanical Club, has been published hitherto. About a year before his death Mr. Robbins became a member of the New England Botanical Club, but, owing to his distance from Boston, he never attended any of its meetings.

In person, Mr. Robbins was of medium height and solidly built, with clean-shaven, ruddy face, blue eyes, and brown hair, which turned to gray in his later years. Sparing of speech, modest, and hospitable, with a quiet sense of humor and a good supply of New England common sense, he was a good companion and a faithful friend.

LIST OF PUBLICATIONS BY C. A. ROBBINS

BOTANY

- Some new Cladonias. *RHODORA* **26**: 145-148. 1924.
Cladonia mateocyatha, a new species, and some variations in *C. Beaumontii*. *RHODORA* **27**: 49-51. 1925.
Cladonia apodocarpa: a new species. *RHODORA* **27**: 210-211. 1925.
The identity of *Cladonia Beaumontii*. *RHODORA* **29**: 133-138. *pl.* 157. 1927.
The identity of *Cladonia lepidota* Fries. *RHODORA* **31**: 101-106. *pl.* 187. 1929.
Cladonias collected by S. F. Blake in the western United States. *RHODORA* **33**: 135-139. *pl.* 209. 1931.
(With S. F. Blake.) *Cladonia* in the District of Columbia and vicinity. *RHODORA* **33**: 145-159. *pl.* 210-212. 1931.

ORNITHOLOGY

- Winter birds at Wareham, Mass. *Auk* **32**: 499-500. 1915.
A colony of Cape Cod piping plover. *Auk* **36**: 351-355. 1919.

The advantage of crossed mandibles: a note on the American red crossbill. *Auk* **49**: 159–165. 1932.

Also, with Frank Robbins et al., several Christmas bird censuses from Wareham, Mass. *Bird-Lore* **17**: 25. 1915; **18**: 21. 1916; **19**: 15. 1917; **20**: 28. 1918; **22**: 17–18. 1920; **23**: 6. 1921.

BUREAU OF PLANT INDUSTRY, WASHINGTON, D. C.

SOME WEEDS IN AN OLD GARDEN.—The writer's property in Milton, Massachusetts, comprises about sixteen acres. The greater part of this has been under cultivation for seventy-five years or more. The original layout has been changed but little and many of the trees have been retained where they grew spontaneously.

Since about 1880 I have planted experimentally many species of trees, shrubs and herbaceous plants, and have grown a great many different sorts of vegetables; also many kinds of mulches and fertilizers have been tried. Thus we see why I have been able to note in *RHODORA* from time to time some interesting weeds. I now wish to speak of a few weeds which have appeared from 1928 to 1932, not forgetting to thank Messrs. Robinson, Fernald, Weatherby, Johnston and Blake for help in identification.

1. *SOLANUM NIGRUM* L., var. *VILLOSUM* L.; with the type, amongst vegetables, 28 September 1928.

2. *ECHIUM PLANTAGINEUM* L.; in a flower border, a single plant, 7 August 1929.

3. *SISYMBRIUM SOPHIA* L.; 29 May 1929 and 14 June 1931, each time a single plant. (Also I have a specimen from C. E. Perkins' collection, "Boston 1882.")

4. *ARTEMISIA ANNUA* L.; lone weed, flower bed, 25 September 1929.

5. *TAGETES MINUTA* L.; vegetable garden, 5 October 1929. Dr. S. F. Blake writes (with my specimens in hand) "*****with very little doubt *T. minuta* L. ***** the heads are too young to make this identification absolutely certain ***** already reported from North Carolina."

6. *SISYMBRIUM ORIENTALE* L., amongst vegetables, 7 July 1931.

7. *VERBESINA ENCELOIDES* (Cav.) B. & H., var. *EXAURICULATA* Robinson & Greenman. A single plant in a mixed border, 19 July 1932.

8. *ECLIPTA ALBA* (L.) Hassk., lone weed in my strawberry bed, 2 October 1932.

I have put specimens of all in the Gray or The New England Botanical Club Herbaria excepting only *Sisymbrium Sophia* L. of which material was very limited.—NATHANIEL T. KIDDER, Milton, Massachusetts.